

# AMERICAN VETERINARY REVIEW,

SEPTEMBER, 1884.

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## ORIGINAL ARTICLES.

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### REPORT ON THE RECENT CATTLE DISEASE IN KANSAS.

BY PROF. JAMES LAW, of Cornell University.

*(Continued from page 211.)*

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#### OUTBREAK IN YATES COUNTY, NEW YORK.

In the last week of February, 1884, a cow, belonging to Mr. J. Scoon, Bellona—

was taken with a gurgling or rattling noise in the throat when eating or moving. Subsequently the switch became dead or rotten and came off. Her feet or hoofs squeak like squeaking boots when she walks, but appear all sound. Appetite good as usual; eyes bright; no soreness about the mouth, but somewhat bloated about the bowels. Later, another was taken the same way in the feet, but without the other symptoms. [These cows were fed] all winter, mainly on corn-fodder that had more or less smut in it. About a month before the first subject was attacked she had been turned into corn-stubble, where she had access to considerable smutty corn and fodder.

A change to a fodder of clover hay, with a liberal supply of potatoes, put an end to all the symptoms, except the squeaking of the hoofs, which still continues, the soles having become detached from the quick.

#### COMPARISON OF THE RECENT DISEASE IN THE WEST WITH FOOT AND MOUTH DISEASE.

From an induction of all available cases in Kansas and Illinois, of the above cases in New York, and from the records of those happening in Iowa, Missouri, and Colorado, we find that

the recent disease of the Western States differs from foot and mouth disease in the fifteen counts presented in the following table, which is submitted as absolutely refuting the statement that foot and mouth disease exists in our Western herds:

**PECULIARITIES OF FOOT AND MOUTH DISEASE.**

1st. The foot and mouth disease is unknown, except as the result of contagion from a pre-existing case.

2d. In every invasion of a new country we can trace the channel of contagion from a previously-infected country.

3d. In a herd of cattle mingling freely in a yard or small pasture every animal is attacked within a week, and, with very few exceptions, all have completely recovered in three weeks more.

4th. The escape of a single bovine animal in an infected herd is rare.

5th. Sheep, goats and swine exposed to the infection suffer almost as universally as cattle.

6th. Does not attack the tail nor ears.

7th. Not usually preceded by diarrhea, though this may come on later.

8th. Feet at first affected in the interdigital space only; hoofs never shed except as the result of neglect of the preliminary inflammation; the bones of the feet never lost unless as the result of exposure to sand and filth and violent inflammation after the shedding of the hoofs.

**PECULIARITIES OF THE RECENT CATTLE DISEASE IN KANSAS AND ILLINOIS.**

1st. In no single herd can the first cases be traced to contagion from without.

2d. To no single diseased herd in either State can we trace any channel of contagion from an infected country.

3d. In the majority of the herds the disease has now existed for four months, and fresh attacks still occur in cattle that have occupied the same yard with the sick throughout.

4th. In some herds half the cattle escaped, though mingling freely with the sick. In Beard's, 4 only suffered out of 75. After the outbreak at O'Toole's, Kansas, he sold 50 cattle, yet they caused no extension of the malady among other stock. Hartwig had a heifer lost for fourteen days in Prebnow's sick herd, yet it conveyed no disease to his own on its return.

5th. Sheep, goats, and swine mingled throughout with different diseased herds, yet in no case contracted the disease.

6th. Gangrene and sloughing of the tail and ears not uncommon. Even when the tail seemed to have escaped, a close observation often detected a circumscribed purple slough at the tip.

7th. Diarrhea a very common precursor of the disease in the feet.

8th. When the hoofs are shed, the bones are usually detached with them, or shortly after, and when the disease extends higher up all the tissues (bones, sinews, and skin) early dry up and wither, up to a given circular line, at which point the whole mass is spontaneously amputated.

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9th. In dairy cows the teats usually suffer, and though exceptionally spared are never so throughout an entire diseased dairy herd.

10th. The eruption on the mouth and teats is always distinctly vesicular (blisters); the same in the interdigital space if seen early enough.

11th. Is easily carried from herd to herd in the clothing of people visiting, as in the recent extensions from the foreign animals' wharves in England.

12th. Is easily carried from herd to herd by dogs and wild animals.

13th. Inoculations of previously unaffected cattle, sheep, and swine with the saliva of the sick always produce the disease. Exceptions are so rare that they need not be taken into account.

14th. The maintenance of an unrestricted trade from the localities in which this disease is widely prevalent almost inevitably carries this disease into the markets and railways cars and the different States supplied through these.

15th. Horses rarely suffer, but if they do the disease passes through all its stages and ends in recovery within three weeks.

9th. Only one case of eruption on the teats has been noticed (Keith's cow).

10th. While blisters have appeared on the diseased parts, they have been so inconstant that few have seen them. More commonly there are simple erosions or extravasations, followed by sloughing.

11th. Many stockmen have visited and even handled the diseased herds, but no extension of disease has been caused thereby.

12th. Rabbits and other wild animals ran about the yards and fields, but neither they nor dogs led to outbreak in the herds adjacent.

13th. Inoculation of one heifer and two sheep with matter from the mouth lesion of a heifer attacked nine days before produced no result. Inoculation of one calf, one sheep, and two pigs, with matter from the mouth lesion of Prebnow's calf (five days old) produced no result.

14th. For four months cattle, sheep, and pigs have been shipped freely from the vicinity of the diseased herds in the different States, yet no infection has been found in the markets nor elsewhere, though looked for in Saint Louis, Chicago, and New York.

15th. Horses attacked with this disease maintained a continuous slobbering for six weeks, or until the feed was changed.

#### AGE AS A SUPPOSED CAUSE OF THE DISEASE.

Having found that contagion was problematical, it may be well to notice a few other conditions that might be supposed to influence the development of the disease. That age was inoperative as a cause is shown by the following: At Keith's the yearlings were first attacked; at Hindman's the two-year-olds suffered, while the yearlings almost entirely escaped; at Beard's the suf-

ferers varied from two to ten years of age; at Prebinow's the three-year-olds suffered most, while no yearlings lost a hoof; while at O' Toole's there was one two-year-old, one six-year-old, and two old cows. In Illinois the same irregularity was noticed, and in New York the sufferers were mature cattle.

#### LOW CONDITION AS A SUPPOSED CAUSE.

Some newspaper reports emphasize the low condition of the cattle attacked, but there is abundant evidence that the herds first attacked were well fed and in good winter condition. Those that lost their feet, it is true, became rapidly and even extremely emaciated; but to put this as an etiological condition is to put effect for cause and to blunder fundamentally. Lowered vitality, from poor feeding, exposure, or disease, is doubtless an accessory cause, but not the essential and potential one.

#### FREEZING AS A SUPPOSED CAUSE.

Frozen feet has been a favorite explanation of this outbreak, and is very significant of the loose manner in which such outbreaks are accounted for. The three first herds attacked in the Neosho Valley had ample shelter in timber-lots, whereas the adjacent herds, denied such shelter, and far more thoroughly exposed to the inclemency of the weather, almost entirely escaped. The animals most severely attacked were on bottom-lands, while those on the more exposed uplands escaped. The stillness of the air near woods favored the growth of ergot, but opposed freezing. The prevalence of the disease in southern latitudes, rather than northern, opposes the idea of freezing. The feet have especially suffered, while the more exposed ears, teats, and tail, so subject to freezing in northern latitudes, escaped. The frequent existence of lesions in the mouth, even in the early stages of the disease, cannot be ascribed to freezing. The presence of diarrhea in the early stages of a majority of cases is not to be accounted for by freezing. The immunity of sheep, swine, and (in Illinois) goats suggests some other cause than freezing. Finally, the occurrence of new cases in April, after the temperature had permanently risen above 32° Fahr., puts the theory of freezing entirely out of court.

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## MUDDY YARDS AS A SUPPOSED CAUSE.

In the different herds the disease appeared and progressed differently as to the continuance of frost or thaw, as to whether the limbs were clean and dry, or plastered over with mud. In the one calf (Prebinow's) which I saw in the earliest stage of the disease, the interdigital spaces were clean, contact with mud having been practically impossible. Again, the immersion of the feet in mud could not account for the gangrene of tail and ears, nor for the lesions in the mouth.

## IMPURE DRINKING-WATER AS A SUPPOSED CAUSE.

That the pond water supplied to certain herds was impure, having been, in part at least, the product of surface-drainage of the yard, is to be acknowledged. The specimens which I received from some of these ponds have a dirty-whitish opacity, and abound in diatoms, infusoria, micrococci, bacteria, and decomposing organic matter. The water had this further peculiarity, that when brought in contact with the blood of man or animal, it instantly dissolved all the red globules, leaving only a few white globules to be detected by the microscope. On chemical examination the water was found to contain a quantity of nitrites which have this peculiar destructive action on the blood; but as water from the hotel pumps at Neosho Falls contained bacteria in large numbers, and destroyed the blood globules in the same manner, yet had not proved injurious to the animals drinking it, any idea of the causation of the disease by this water must be dismissed. Moreover, this power of rapidly destroying the blood globules was found to be inherent alike in the water of Keith's well and of Falls Creek, Tompkins County, New York, the latter being supplied to many cattle that furnished no indications of this disease. It should be added that a special physiological action of the nitrites is to induce dilatation of the capillary blood-vessels, a condition apparently opposed to that of the shrunken, dried, and horny tissues of dry gangrene. Everything tends to exclude the water from the list of possible causes.

## ERGOTED HAY OR SMUTTY CORN AS THE CAUSE.

In favor of the theory of ergot as the cause of the affection which has been investigated in the West, it may be stated—

1st. That similar results (and especially the dry gangrene of the extremities) are well known to occur from this cause.

2d. That on all the farms where the disease was observed, and where any of the kind of hay or cornstalks fed to the animals before the attack could still be examined, it was found to be badly affected with ergot or smut. In Kansas this was wild rye (*Elymus virginicus*), millet, and maize; in Illinois, red-top, (*Agrostis vulgaris*) and maize.

3d. That when the hay of last year's crop (1883) could be compared with that of the previous year (1882), as at Faunce's, it was found that the ergot in the former was much more abundant than in the latter.

4th. That animals, such as swine, running with the cattle but feeding mainly on corn (maize) and consuming little or no hay, escaped without exception.

5th. That sheep and goats, which are more dainty in their feeding, taking in food in small morsels with their delicate, mobile lips, and habitually rejecting whatever is unpalatable, invariably escaped, though running with the sick cattle and supplied with the same fodder. Cattle, taking in large mouthfuls with their long, barbed tongues, make no such selection.

6th. That in a number of cases the disease began during a period of intense cold, when the supply of drinking water was less constant and abundant in connection with the freezing of ponds and drinking troughs.

7th. That in different instances the herds were driven once a day to the pond where the ice had been broken, and in such cases it is well known that the tendency is for the leaders of the herd to stand for a time about the openings, drinking little on account of the cold of their bodies, of the air, and of the water, yet keeping back the weaker cattle, which in their turn tend to follow the herd, some without drinking, when a start is made back to the yards. It is well established that the action of ergot is always intensified by a deficient supply of water.

8th. Dry gangrene has been unusually prevalent in the different Northern States in the present year, and this, taken in connection with the excess of ergot in last year's hay, in cases

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where a comparison has been made, suggests this as the essential cause of the disease.

9th. In some of the worst outbreaks (Keith's, Hindman's, Beard's, Kansas; Mason's, Founce's, Wheeler boarding house, Wetherholt's, Illinois), the localities were low and the ground damp and rich, while in several (Keith's, Hindman's, Beard's, Kansas; and Faunce, Kibler, Illinois), the places were more or less shaded by woods, both of which conditions favor the growth of ergot.

10th. That in one case at least (Faunce's) horses kept in the yards with the cattle and fed almost exclusively on the badly ergoted hay became unwell, lost condition rapidly, had sores in the mouth, and slobbered for six weeks until spring weather set in and the effect of the ergot was modified by a fuller allowance of corn.

11th. That in Effingham and adjacent counties the red-top hay, which was generally ergoted, was rejected by horses if they could get other fodder, and where it was used the animals did badly, lost condition rapidly, and in some cases slobbered. This hay was in such ill-repute that Mr. Moore, who keeps horses on livery at Effingham, told us this kind of hay would not bring over \$3 per ton, whereas ordinary Timothy hay sold at \$10 per ton.

12th. Mr. Mason, Jasper County, Illinois, informed us that in his district he knew of twenty abortions, or premature parturitions, in mares, a common result of the continuous use of ergot.

13th. Mr. Schlager, who practices veterinary medicine at Effingham, further states that there has been an unusual number of difficult parturitions in mares and cows in the present spring.

14th. At Pleasanton, Linn County, Kansas, on the Osage River also, Colonel Hamilton, State cattle commissioner, found that a number of abortions had occurred among cattle in the present season.

#### FACTS APPARENTLY OPPOSED TO CAUSATION BY ERGOT OR SMUT.

1st. The calves of Mr. Keith, of Coffey County, the first known to be attacked in Kansas, are alleged to have been fed on

sheaf oats and corn from their arrival, December 13, up to the period of their attack, December 23. It is not perfectly clear, however, that they had no access to the suspected hay during this period.

Mr. Keith himself acknowledged that "there might have been hay in the racks" during this period. Major Sims, secretary of the State Board of Agriculture, says that at the time of his visit (March 1) there was still standing a stack of hay built onto the fence of the corral so as to practically form a portion of this fence. It must not be forgotten that Hindman's cattle were taken sick fourteen days after they were put on the hay bought from Keith. Finally Mr. Keith himself testifies that three or four days after he received the calves he turned them into a small lot of three or four acres of corn stalks. Now, while we have no evidence of the presence of smut in this corn, nor in this sheaf oats, yet it is well known that this fungus (*Ustilago Maidis*) has the same effect as ergot in inducing dry gangrene, and as the sheaf oats have been used up and any remnants of the corn stalks have been completely stripped, negative evidence is lacking as much as positive. There is only the inference from common experience that such crops always have more or less smut, and from the proven abundance of ergot in the hay, implying a special potency of those climatic conditions which favor the growth of fungi in general, and those of ergot and smut in particular. This climatic influence is of course inoperative in the absence of the spores, but these being present there is the presumption of a corresponding abundance of smut as of ergot. Another point is that at the period of the outbreak the pond was low and completely frozen, and in place of breaking the ice Mr. Keith supplied the water by hand-pumping from a well, necessitating several hours of continuous work daily. It would not be surprising if, in some instances, the daily supply procured by this means should have been slightly defective.

2d. Mr. Beard fed his stock on hay very full of ergot, but which had been bought from Mr. Biddison, and the cattle of the latter, fed on the same hay, were not noticed to suffer. A fact of this kind cannot, however, negative the causative action of the

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ergot, as that depends so much on accessories like the other feed, drink, and surroundings, that better conditions will sometimes render it comparatively harmless. Even in Mr. Beard's herd only four animals out of seventy-five suffered, and considering the amount of ergot in the hay, this is probably to be explained by the abundant supply of water from a rapid in the river which never froze over.

3d. The six experimental cattle placed on Mr. Keith's premises were attacked with diarrhea, transient fever, and an eruption in the mouth, though supplied with swamp hay quite clear of ergot. It must be taken into account, however, that they were first placed for seven days in a yard with Keith's cattle, where they had free access to the ergoted hay. The second lot of four experimental cattle, which were kept in the same yard with access to the ergoted hay for twenty-four hours only, had a slight and transient elevation of temperature on the third day, but no sores of mouth, feet, nor teats. The sheep that had no access to the hay at any time entirely escaped. The fact that the cattle suffered in degree proportionate to the opportunity for the ingestion of the ergoted hay strongly suggests this as the cause of the trouble.

4th. Certain calves suffered which were too young to have eaten any ergoted hay. Thus at O'Toole's a calf had its mouth badly affected, though kept in a park on the opposite side of the road from that occupied by the diseased cows and ergoted hay. Its sick dam was, however, admitted to suckle it twice daily. At Keith's a calf died with intestinal inflammation after sucking the sore teats of its dam, which suffered from sloughing feet, tail, and ear. Again, at Prebinow's, a five days old calf, nursed by a cow with feet in a gangrenous condition, had disease of the mouth and interdigital space.

In estimating the value of such cases it is noteworthy that Hensinger (Path. Comp., Vol. I, p. 484) states that "infants at the breast have often suffered more than the mothers, who had made use of the ergot." Bruce, speaking from the English standpoint, and with less experience of the disease, says that "infants at the breast are never attacked" (Dict. of Med.). There is a



strong presumption that the calves suffered from the deleterious principles of the ergot secreted with the milk, and this view is corroborated by the absence of any results from any inoculations made with the morbid products of such cases. Had it been any septic or organized poison, there is a strong presumption that it would have perpetuated itself more or less in the inoculation wound.

5th. It has been objected to the theory of ergotism that no other animals than cattle (and in one instance horses) suffered. The exemption of sheep, goats, and swine is accounted for, as already explained, by their refusal of the ergot in the fodder.

6th. It is further objected that in case of ergotism there should have been abortions in the pregnant cows. This is not a necessary result of ergotism, as in one country or time the tendency is to a particular result—convulsions and paralysis, gangrene or abortion—and not all three of these in the one herd or in one district.

As we have seen above, however, the presence of an excess of ergot in the red-top hay of Illinois in the present year has been coincident with an unusual number of abortions in mares.

*(To be continued.)*

## RESEARCH FOR THE BACILLUS OF KOCH

IN THE EXPECTORATE OF PHTHISIC CATTLE. APPLICATION  
TO THE DIAGNOSIS IN DOUBTFUL CASES.

By M. NOCARD.

The contagiousness of tuberculosis, for a long time suspected by certain practitioners, has been at length verified and established by the important experiments of Villemin, and, notwithstanding the somewhat fanciful interpretations given to some of the results of these experiments, it was rationally to be expected that one day or another tuberculosis would be assigned its natural position, and claim its place in the category of parasitical or microbial diseases. The able and interesting discoveries of Dr. Koch have now justified this expectation. The microbe of tuber-

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culosis is a bacillus which is found in all the tuberculous lesions, and even in the products of the expectoration of phthisis. It can be cultivated indefinitely in artificial media, and when inoculated in the state of purity in various members of the animal species, reproduces exactly the disease from which it first proceeds, under every variety and kind of form. These are the three principal conditions necessary to the actual scientific illustration of the subject, and which involve the admission, as demonstrated, of the assertion that such lower organism, or microbe, is the only cause of this contagious disease. In other words, it is to-day an acknowledged fact that tuberculosis is functional in the bacillus of Koch, as anthrax is functional in the bacteridie.

One of the most important points of the discovery of Koch is the defining of the histo-chemical characters special to the tuberculous bacillus, which belong exclusively to it, and which have never been observed in any other of the known micro organisms. When placed in contact with a slightly alkaline solution of any of the numerous coloring matters obtained from aniline, the bacillus of Koch fixes the coloring matter with such a power that if submitted afterwards to the one-third solution of nitric acid it retains the given coloration, while all the other elements, whether cells or microbes, with which it may be mixed, lose it completely in a few minutes. Again, if, after the action of nitric acid, the preparation is placed in another coloring solution, all the elements of the preparation take this second coloration, with the exception of the bacillus of Koch, which alone retains the first\*. In this curious reaction we have the proof that the micro-purulent sputa of phthisis always contains bacilli, and at times in considerable quantities; and that, amongst the numerous micro organisms that may be found in the sputa, the bacilli of Koch alone resists the discoloration by nitric acid.

From the publication of Koch's discovery (in April, 1882), a great number of observers have essayed to repeat and to apply his experiments in such a manner that humane doctors of the

\* One exception, however, must be made in favor of the bacillus of Leprosy, the action of which resembles that of tuberculosis; but their difference, both in size and form, at once establishes their distinction.

present time have become possessed of a new element of diagnosis for doubtful cases of tuberculosis—to wit: that the coloration of the bacillus in the sputa of the patient is conclusive in determining whether he is tuberculous. It is but two years since Koch published his discovery, and the cases may be counted by thousands in which cases of tuberculosis have been verified by the presence of the bacillus in the sputa of the patient. It is a fact, moreover, that, in a certain number of cases where the general condition of the sick, the progress of the disease, and all the stethose optical signs have seemed to justify a diagnosis of tuberculosis, the constant absence of the bacillus of Koch from the sputa has authorized and confirmed the reserve of the diagnosis, and the post mortem investigation has revealed the existence of pulmonary lesions, such as bronchial dilatation and pulmonary sclerosis, having nothing in common with tuberculosis.

May not veterinary medicine also derive its share of benefit from the important discovery of Koch? Animals of the bovine species, which are of such value in the point of view of human food, are, like its human victims, decimated by tuberculosis; but the identity of the two affections, the bovine and the human, has not yet been demonstratively established. Yet it may be possible that these two tuberculiform diseases are of different natures; that they spring from distinct causes; that the parasite around which the tubercle forms itself would not be of the same species in one as in the other. The researches of Colin, of Laulanie, of H. Martin, etc., have shown that foreign bodies very different, both inert and living, may give rise to the formation around them of tubercles, morphologically identical to the naked eye, and even to the microscope, in such a way that to-day every one admits that what characterizes the tubercle is *the specificity* (Renant).

What connections exist between human and bovine tuberculosis? Does the bacillus of Koch exist also in the tuberculous ox? If so, can its presence be discovered in the purulent expectoration of the sick? Both of these questions admit of an affirmative answer. It is even so; the bacillus of Koch exists in the lesion of the tuberculous bovine, and Koch himself has found

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it in twelve cases of phthisis pulmonalis examined by himself. The caseous centres contained them in quantity. But what is more important, in the point of view of diagnosis, is that the bacillus exists also in the products of expectoration, with all the specific characters indicated for that of human tuberculosis, and that the same manipulations are sufficient to render them evident. In doubtful cases, then, and these form the majority in the bovines, the veterinarian can, like the physician, establish the diagnosis with certainty, after examination of the bronchial mucosities of the animal under suspicion.

The phrase, "like the physician," may convey an exaggerated sense, for it is easy for him to obtain his patient's sputa for examination, while it is not so for the veterinary surgeon, for the ox does not expectorate. The purulent mucosities thrown off from the bronchial passages by the act of coughing, are swallowed (and to this, may it not be said in passing, is doubtless to be attributed the frequency and serious character of the tuberculous lesions of the mesenteric glands of bovines.) It is only exceptionally that in a violent act of coughing mucus is expectorated externally. But the difficulty can be obviated. By pulling the tongue outside of the mouth, deglutition is prevented, and if the animal is made to cough, the purulent mucosities expelled fall on the floor and can be easily secured for examination. Of course, we know how difficult it is to make a healthy cow cough, but it is not so with a sick one.

Here are preparations of bronchial mucosities obtained from a tuberculous cow\* and treated by the Erlich method; you can observe the presence of considerable numbers of very small bacilli strongly colored in red, while the bottom of the preparation is either colorless or colored in blue or in brown, (blue of methylene or vesuvine).

\* The best technical manner to follow, both the simplest and the most rapid, is that indicated by Erlich, one of Koch's students. With a saturated aqueous solution of oil of aniline, shake firmly 100 grains of distilled water, with 40 grains of oil of aniline, and filter. Of this take 100 grains, and of saturated alcoholic solution of fuschine, 1 cub. centim. : a shade of mucosity is spread in a thin layer between two glasses; each of these is then rapidly passed two or three times through the flame of an alcoholic lamp, to dry and coagulate

The cow which served for these preparations was destroyed for anatomical purposes. She was absolutely lean to an extreme, full of tubercles, even in the muscular masses—a curious condition; the udders were healthy, atrophied, but not tuberculous. I extracted a very small quantity of the milk, which was treated like the bronchial muco-pus; numerous preparations were made of it, but no bacilli could be detected. This fact agrees with the experiment of Bollinger, which proved that the raw milk of phthisical cows did not transmit tuberculosis except in the case where the udders were the seat of tuberculous lesions.

\* \* \* \*

Since the 22d of May I have had occasion to see three phthisical cows. In one, the tuberculous masses were almost entirely calcified; in all three I observed in the muco-pus of the bronchia the presence of a large quantity of bacilli; they were counted by hundreds under the field of the microscope.

One of the cows used for the class of operative surgery seemed to me in the last stage of phthisis. She was a living skeleton, had repeated paroxysms of coughing, and ejected abundant mucosities; auscultation revealed a great roughness of

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the albumen. A few drops of the solution of Erlich is then poured into a watch-glass, and over the surface of this liquid the glass thus prepared is placed in such a manner that the side on which the mucosity is shall be in contact with the coloring matter. The duration of this contact is from 12 to 24 hours, if one operates under the ordinary temperature; or it may be reduced to 15 or 20 minutes, if the watch-glass is placed over an alcoholic lamp and left until a slight vapor begins to show itself on the surface of the liquid.

The colored glass is then washed with distilled water, dipped into a solution of nitric to the third, just the time necessary for all coloration to disappear. This time varies, according to the thickness of the mucosity dried on the glass, from ten seconds to a minute. The glass is again washed with distilled water, then put for a few minutes into a concentrated aqueous solution of bleu of methylene or of vesuvine: washed a last time with distilled water, then dried; the glass, which had taken a handsome blue or marine color, is mounted with Canadian balsam. The bacilli of Koch appear strongly colored in red; all the other elements of the preparation, cells, nuclei or microbes, having a blue or brown coloration.

The glass can as well be mounted in the balsam as soon after the discoloration with the nitric acid; but then the bacilli only appear strongly colored in red, the remaining parts being colorless and nearly invisible. The double coloration gives the nicer preparation.

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the vesicular murmur, and some dry crepitant and sibilant rales, disseminated over the whole extent of the lungs; percussion showed dullness in the lower third of both sides. A diagnosis of tuberculosis was made.

The examination of numerous preparations of expectorated mucosities revealed a great number of micro-organisms of various forms and sizes—bacilli, micrococci, isolated, germinated, in rods, or in zooglia, but not one of them had the reaction of the bacillus of Koch; all became discolored when dipped in nitric acid; all took the coloration, blue, violet, maroon, green, etc., put on the glass. No results could be obtained from many examinations. The autopsy proved the error of the diagnosis, and the truth of Koch's method. There was no trace of tuberculosis, but on the anterior median line appeared an enormous purulent pouch, surrounding the pneumo-gastric, having flattened the tracheæ, pushed the heart backwards in atrophying the right ventricle. Neither the pus of the abscess, nor the bronchial mucosities, contained any of the bacilli of Koch.—*Archives Veterinaires.*

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### CASES FROM A NOTE BOOK.

By T. B. ROGERS, D.V.S.

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#### *Injuries to the Lower Third of the Tibial Region and their Lesson.*

In the summer of 1880 I was called to attend a horse suffering from fracture of the lower third of the tibia, arising, the owner said, from no apparent cause. The horse got a "little kick" over the seat of the injury two days prior to the leg breaking, and while being led out to water the displacement occurred. Of course the leg was fractured wholly or partially by the kick, displacement occurring afterward through muscular contraction. Recently I was called to see a valuable five-year-old mare, lame from a kick in the same region, and made a diagnosis of fracture without displacement; the owner, doubting the correctness of my opinion, allowed the animal to run at large in the meadow. Displacement occurred on the *twelfth day after reception of the injury* and the



mare is now under treatment. Many similar cases are on record. What is the lesson? *Any injury by blow or kick inflicted on the inner side of the tibia should be treated as a fracture, the animal placed in slings and a permanent bandage placed on the limb.* This is the more to be insisted on from the great tendency of these fractures to become compound either through destruction of vitality of the skin injured by the kick or blow, or its laceration by sharp ends of bone.

#### *Pulmonary Hemorrhage.*

I saw lately a severe case of hemorrhage from the lungs in an aged horse, the animal losing nearly two pailfuls of blood in a very short time. Being satisfied that internal treatment would have no influence on vessels having the calibre to bleed so freely, I trusted to heart faintness for the arrest of the hemorrhage, which occurred as soon as the pulse began to falter.

#### *Melanosis in a two-year-old colt.*

During the past summer I removed a nodule of melanotic matter the size of a walnut from a two-year-old colt that I castrated, and the animal has since had another form in the neighborhood of the umbilicus. This is the youngest animal I ever knew to be thus afflicted. His color was a dirty grey.

#### *Castration Standing.*

From the advance sheets of Prof. Liautard's work on animal castration I learn that he disapproves of this procedure. There is only one advantage in the operation. It is a "big free blow" for the operator. It is "butchery" not surgery; it does not admit of the operation being performed "lege artis." The operator cannot judge of the length he is cutting the cord or of the presence of adhesions, and, as Professor Liautard remarks, if the surgeon meets with an unsuspected hernia he is in a bad shape to deal with it.

#### *Protracted Pregnancy.*

A wealthy gentleman had in his possession for thirteen months a thoroughbred Kentucky mare, said to be in foal at the time of purchase. He insisted on her being pregnant, and at the end of

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thirteen months called on a graduate of the Royal College for his opinion, said opinion being that a further examination would be necessary. Query—was the Royal College man intellectual or a practitioner for revenue only. Fifteen months have now elapsed and still that long expected foal is not on hand.

### CONTRIBUTION TO OBSTETRICS.

By C. L. MOULTON, D.V.S.

I sent to your museum some time ago a collection of foetal bones, that were more or less preserved after their long imprisonment in utero. The history of this case is as follows: A cow was purchased by the post milkman here, from a breeder in Kansas, three years ago, and driven here. She was a fine looking half-bred Hereford. The breeder said she had had one calf and was with calf again at the time of sale. Although having the appearance of being pregnant she failed to show any symptoms of parturition. She gained rapidly in flesh, came in heat regularly, and was frequently served during the past three years. All this time she kept in prime order and apparently enjoyed the best of health. This spring the owner becoming discouraged of ever breeding her, she was reluctantly sold to the butcher.

In removing the intestines the butcher happened to take hold of the uterine horns, and said he thought it was filled with gravel. He removed the organ entire and brought it to me. I found the uterine walls very much thickened, and in the very small space constituting the cavity of the uterine horns, was a collection of dirty black looking fluid, very foetid. In this fluid I found the bones I sent you. I can readily understand how the soft parts could be absorbed, but what seems remarkable to me is that the cow should have enjoyed such good health and kept in such a plethoric condition all this time.

Another experience I have had is of much interest to me. I was called to see a three-year-old heifer, with first calf, and said to be seven months gone. I found her very uneasy, continual pains, and a large tumor protruding from the lips of the vulva.

An examination showed me that the os uteri was at the lowest point of this large red protrusion. The os was very rigid. I could not even get one finger into it. I ordered a narrow stall built to raise the hind parts of the cow some eighteen inches higher than the forward parts. The tumor was bathed at first with warm, and afterwards with cold water. Ordered tinct. opium in one ounce doses every six hours, and then left her, promising to call the following morning. I found on my second visit that the protrusion had entirely receded. The os was easily dilated with ung. belladonna. A dead foetus was found with its abdomen enormously distended with gas, and in such a state of decomposition that I readily ruptured the abdominal walls with my fingers. After the gas was released there was no further trouble in delivery. I removed the placenta and sponged the uterus with carbolized warm water. In a few days the mucous membrane lining the vagina sloughed and came away in large patches. I dressed the parts with carbolized oil, and the cow made a good recovery. I was very careful at the time and used plenty of carbolized oil on my hands and arms, did not have a wound of any kind on them, but nevertheless I contracted a severe case of blood-poisoning. Have several scars on my right arm by which to remember that case.

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## EDITORIAL.

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### ANNUAL MEETING OF THE UNITED STATES VETERINARY MEDICAL ASSOCIATION.

In a few days more the United States Veterinary Medical Association will enter upon the twenty-second year of its existence. On this occasion it is proposed to celebrate the lapse of its majority by changing the place of meeting—which, indeed, has become a necessary measure and a natural consequence, not only of the growth of the Association itself, but also of that of the profession at large.

At the organization of the Association, which took place in the old Astor House, New York city, and where the constitution and by-laws were signed, the names placed on record for the for-

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mation of the first organization of the kind in the United States were but few. But a good record it was for all, and especially for those self-educated men who were thus acknowledging their appreciation of the profession they had chosen. Little by little, however, and year by year, the Association as it grew older enlarged its list of members, and so increased its catalogue, that to-day, in visiting any portion of the country, whether in the North, the South, the East or the West, the members may be sure of finding a glad welcome from their fellows who hold a certificate of membership. Her motto ought to be "Union," for since her foundation it has always been her prime endeavor to unite the members of the profession in a true spirit of brotherhood. Thus we trust that the visit to Cincinnati, in order to celebrate the anniversary, will not fail to bring many worthy members of the profession into friendly contact and useful acquaintanceship.

The growth of our special department of medicine in the United States has been so great within the last twenty years that many sections of our continent are now provided with competent veterinarians, which heretofore were compelled to leave their ailing animals to the care of ignorance and charlatanism. While a few years since the veterinarians of the country could be counted by two or three hundreds, our recent statistics show over a thousand names in our ranks. Are not these all-sufficient reasons why the United States Veterinary Medical Association is by a natural law, so to speak, crowded beyond the sphere they had heretofore occupied, and why they are justified in going to meet their friends in the metropolis of Ohio?

We may expect that at the meeting in Cincinnati some difficulties will present themselves in the matter of organization. The question of admission to membership may not be carried out as promptly as some candidates would choose. The presentation of credentials from veterinary societies will probably be thought necessary, and ought to be, previous to the opening of the regular meeting; the Comitia Minora ought to be ready to work at an early hour, and the Board of Censors should be prepared to report at the opening of the meeting. If the organization is well managed, we shall probably be able to record a grand meeting.

All the veterinary associations we know of in the East have promised to select their delegates, and there cannot be a doubt that our Western *confreres* will appear in goodly numbers to meet them. Let us, then, have a good and a large meeting; and if the officers have respectively performed their duties, we are sure to have also a very interesting one.

#### THE SPREAD OF CONTAGIOUS PLEURO-PNEUMONIA—ITS APPEARANCE IN ILLINOIS.

We hear the startling announcement, "There can be no longer any doubt that contagious pleuro-pneumonia has broken out in Illinois." The lofty Alleghanies, whose ridges, it has been boastfully claimed, formed an impassable barrier to its westward progress, have not hindered its transit, and the West is at length suffering from the presence of the dreaded infection. Acting Commissioner Carman has telegraphed to "take all means deemed necessary," but the absorbing question confronts us, can any means be expected to succeed, in view of the reported fact that already *twenty-one* animals from infected herds have been carried into other States?

The facts attending the history of the connection of the veterinarians of the United States with this disease are of very peculiar character, and cannot fail to serve, to a great extent, to make the profession in America a laughing-stock for the veterinarians of other countries.

That contagious pleuro-pneumonia existed at some points in the New England States, was a fact within the knowledge of all. The commission of Gen. Patrick and Prof. Law and his able body of inspectors had established it beyond the denial of the strongest skepticism; but its limitation within the Eastern territory had been proved by the Commissioner of Agriculture, and the report of Prof. C. P. Lyman. But to what advantage were their labors, and what has been the fruit of the liberal outlay of money involved in the work, beyond the organization of the U. S. Treasury Cattle Commission, with Prof. J. Law as the president, to stand sentinel over the evil, as well as to guard against the importation of other animal diseases?

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The Bureau of Animal Industry, with Dr. E. Salmon, its chief, have lately entered upon the work of taking a census of the sickly animals which may be found in the States hitherto known to be infected.

The Brooklyn Board of Health is fighting again its periodical battle with the local swill-milk associations upon the question of the existence of contagious pleuro-pneumonia in the long-existing and too well known infected districts in that city. The Board is supported by Prof. L. McLean and other veterinarians, while the swill-milk interest employs Prof. R. W. Finlay and some others as advocates and defenders.

And what is the gist of all this?

The U. S. Treasury Cattle Commission has, in all probability, been prevented from more closely watching the progress of pleuro-pneumonia by a point of official etiquette, in the fear of interfering with the Department of Agriculture, under which the Bureau of Animal Industry is laboring (?). And this bureau has been unable to prevent the march of the disease westward by the pressure of a more important affair, in the East, to wit, the solution of the inquiry as to what may be the exact number of pleuro-pneumonia cows inhabiting New York, New Jersey, and neighboring States. It is thought to be important to know whether a given region contains just one hundred, or only ninety-nine indisposed cattle, for in the first case Congress may be relied upon to appropriate funds to sustain a conflict with the enemy, but not if feeling only the pressure of an odd number with only two figures. It is interesting to inquire what may be the value of a census of sick cows, which, in order to be effective in respect to inducing public aid and exciting public alarm, must be governed by the theory that ninety-nine cases may be ignored as to the danger of communicating infection to other cattle, and only when the number requires three figures to write it, it becomes a stupendous economic evil and fearful hygienic scourge.

As to the Brooklyn Board of Health, their action will at least show once more that there are veterinarians in these infected districts who are faithless as to the existence of contagious pleuro-pneumonia in that city, and are, on the contrary, willing to look



upon animals sick with lung affections as never being ill with any but mere sporadic inflammatory disease of the air-passages, and who thus place themselves on the enviable list of those who refuse to believe that the disease exists in that district.

Result of all these :—

*"There can be no longer any doubt, contagious pleuro-pneumonia has broken out in Illinois."*

#### SANITARY STATEMENTS AGAIN.

We have time and again called upon our readers, and upon members of the profession also, for facts relating to contagious diseases, and we have always pointed out to our friends the necessity for doing so. In fact we have tried to show how this is a duty due not only the profession, but to the public at large. We are satisfied that from the publication of sanitary statements of the true extent of the contagious diseases of domestic animals, a great deal of public, national, and even international good might be derived. That we are not mistaken is shown us by the letters we receive with the return statements, in which the writers always acknowledge the necessity of such publication—letters and statements for which we offer our thanks to all who have sent them.

We have not, however, with very few exceptions, received the statements of the veterinary officials, nor of State veterinarians, nor of veterinarians connected with boards of health. We have not, indeed, supposed that they would take the necessary trouble. Working for the profession is a different affair from that of governmental offices. But at least, if we cannot give to our statements the strength and completeness they would possess if they were, so to speak, "official," we will be able to give them a certain indorsement of official function, since, instead of being made by a few, they will come from a majority of the veterinary surgeons of the land.

We once more, and will again, urgently ask our readers, and in fact all veterinarians, to mail us monthly, or every three months, a statement of the contagious diseases they may have encountered in their practice, and hope that official veterinarians

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also will realize the fact that our object is not personal, and that they will yet come to our assistance in despite of red tape restrictions.

Our report for the first semester of 1884 is published in this issue. Incomplete as it is, we hope it will prove interesting and useful.

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## EXTRACTS FROM FOREIGN JOURNALS.

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### TRANSMISSION OF HUMAN DIPHTHERIA TO FOWLS.

BY DR. L. ROTH.

The doctor has made the transmission of human diphtheria to fowls the subject of some interesting observations. While treating two children in a family affected with scarlet fever complicated with diphtheritic sore throat, he one day noticed in front of the bed of one of the children, and on the floor, a long band of epidermis, and was told that others had been expelled at previous times since the period of desquamation, which had been thrown away and swept upon the manure pit in the yard, where some thirty hens and six young roosters were kept. Six days after, ten of the hens were found suffering with diphtheria, with all its characteristic symptoms, and notwithstanding the isolation to which they were subjected, all the others became more or less affected. The mortality was about six per cent.—*Wochenschrift für Thierh.*

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### A CASE OF SPASM OF THE STERNO-MAXILLARIS MUSCLE IN THE HORSE.

BY M. J. BÜHLER.

This rare affection was observed by the author in an animal whose history was, that several days previous he had suddenly stopped eating and remained for several minutes with the mouth open; showing the same symptom subsequently, also while at work. During these manifestations the superior parts of the sterno-maxillaris were spasmodically prominent, and projected above the parotid glands. These were of several minutes' dura-

tion, and were followed by immediate relief, which allowed the animal to continue eating. The treatment consisted in frictions along the length of the muscle, of a liniment made of 60 grammes of chloroform and 150 of spirits of hyosciamus.—*Schweizer-Archiv für Thierh.*

#### BRIGHT'S DISEASE IN THE DOG.

By M. A. MATHIS.

After a summary of the literature on this subject, and a reference to the names of various writers, the author gives the history of the patient as follows: The animal had already been under our care for an attack of endocarditis, from which he recovered. Since that time, however, he has lost his strength, becoming lazy, and complaining at the slightest movement; and sometimes persisting in constantly keeping near the fire. For the last few months his appetite had been capricious, and he had become much constipated. He micturated very often, a little at a time, every hour, then every half hour, and is now a regular annoyance to his owner on that account. His thirst was very great, and he had lost considerable flesh. His old endocarditis has left no mark behind; his pulse is 110; temperature, 39°; lungs and liver and other intestines apparently healthy. Diabetes was first suspected, but an examination of the urine failed to reveal the presence of sugar, and a diagnosis of Bright's disease was made, and a fatal prognosis given. The animal was then abandoned by his owner and destroyed. The lesions found in the kidneys are summarised as follows: 1st. Arteritis and periarteritis, well marked and generalized; 2d. Sclerosis, by propagation of the vascular lesions; 3d. Atrophy and degeneration, with disappearance of the epithelium, occlusion of the tubuli, and formation of miliary cysts—all of which constitute the lesions found in Bright's disease.—*Journal de Zootechnie.*

#### A CASE OF PHARYNGITIS, WITH PROBABLE ALTERATION OF THE PNEUMO-GASTRIC.

By M. BAUDON.

In May last the author was called to see a gray stallion, which the day previous had refused his food; his mastication was in-

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complete, he drank freely, the liquid not returning by the nostrils; fœces hard and dry; bones flexible; pressure on the larynx produced an avorted weak cough; there was no swelling of the throat; respiration slightly difficult; sounds on auscultation normal; same discharge, yellow and reddish, from the nose; pulse irregular and soft, 58 per minute; mucous membrane not injected, but yellowish; general appearance good; locomotion normal.

*Diagnosis.*—Uncertain. Pharyngitis, or perhaps pneumonia of the anterior lobes.

*Treatment.*—Counter irritants to the throat; seton to the chest; electuary of antimony. After three days of this treatment the animal suddenly fell and died without apparent pain.

*Post mortem.*—The following lesions were found: lungs congested, not hepatized; trachea and bronchia contained white spumous mucosities; liver larger than usual, pale, slightly yellowish, normal in consistency; heart black, syrupy blood in the right ventricle, fibrinous clot in the left, structure normal; kidneys apparently sound; intestines not examined; muscles pale and colorless; throat, two tumors were found at the origin of the œsophagus, of the size of a hen-egg, resting on the infero-posterior face of the guttural pouches, and on the superior face of the larynx, œsophagus and origin of the trachea—their interior seemed to be formed of several small abscesses, and contained a yellowish white pus of a fetid odor.

Mr. A. Mathis considered these as postero-pharyngeal lymphatic glands which had undergone degeneration, the diseased process of which had probably involved the pneumo-gastric nerves.—*Ibid.*

#### COLICS—VOMITING—RECOVERY.

By M. GAVARD.

A Normandy mare, six years of age, suffering with colics for two hours, and treated by the alkaloids of the dosimetrical school, was shown to the author on the 12th of February. Her loins were hard; mucous membranes injected; arteries hard; abdomen heavy and hard forward, and not tympanitic; colic pains, mild.

She was given an electuary of spirits of turpentine and croton oil. Half an hour after, she manifested all the symptoms of vomiting. Careful examination of the left jugular groove failed to reveal the existence of œsophageal jabot, but gave rise to signs of pain, and were soon accompanied by the rejection of a certain quantity of an acid liquid by both nostrils. This vomiting was repeated several times. Expecting a fatal termination, the animal was left alone, and she soon laid down, moving her extremities violently at times, then suddenly, after a strong effort, remaining perfectly quiet. As the nurse who attended her went to remove the surcingle and the blanket which covered her, she suddenly rose, and seemed to have entirely recovered. She has since then been at regular work, and enjoys excellent health.—*Ibid.*

## SOCIETY MEETINGS.

### UNITED STATES VETERINARY MEDICAL ASSOCIATION.

The twenty-second annual meeting of the United States Veterinary Medical Association will be held at the Grand Hotel, Cincinnati, Ohio, on Tuesday, Sept. 16th. at 10 A. M.

It might be stated, as an extra inducement for Eastern veterinarians to attend this meeting, that on the night of Sept., 17th the *Order Cincinnati* will have a grand parade. The Cincinnati Industrial Exposition will also be in progress at that time. It will be well, on account of the crowded condition of the hotels, to secure rooms in advance of Mr. Gilmore, Grand Hotel, Cincinnati.

In reference to routes west, Dr. J. Meyers, Jr., writes me that in his opinion the New York, Pennsylvania and Ohio Railroad is the shortest; the New York Central and Lake Shore is the nicest route, and the Baltimore and Ohio Railroad, for natural scenery, hills, valleys and rough country, is most notable.

CH. B. MICHENER, *Sec.*

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## CORRESPONDENCE.

## FISTULA AFTER ENTEROTOMY.

*Editor Review:*

In the July number of *REVIEW*, H. F. James reports a case of fistula of the colon as a sequel of enterotomy. If I understand Mr. James rightly I think he does not hold the operation in very high esteem. I too have had bad results, but only in a very small majority of cases. I think there is no operation that has saved the lives of so many horses, nor one that may give the veterinary surgeon so much credit as enterotomy properly done.

I could not give the number of cases punctured, but for the time I have been in practice and the amount done I have punctured a great many horses, both from the side and from the rectum, and have never had cause to regret making the operation. I have had trouble in but four operations, in two cases a simple abscess. The first a sorrel pacing horse seven years old, used as a road horse. One week from the time of puncturing I found him exhibiting colicky pains; on examination I found the site of puncture somewhat swollen but no fluctuation. I was able to introduce a fine probe into the original wound and found deep seated pus; made a large opening which gave immediate relief; wound healed; had no further trouble.

Second case, a gray mare seven years old, used for livery. Abscess showed three days after puncture. This abscess was superficial and after being freely opened made rapid recovery.

Third case, a large gray mare eight years old, used in a coal cart. Within six months had three severe attacks of acute indigestion, the last attack followed by impaction. In the first attack she was punctured three times, the second four times, the third attack, four times during the night and again at nine o'clock the following morning; each time on the right side. Bowels did not move until the fourth day, after that the mare improved rapidly, until the evening of the sixth day, when she took a chill. When I saw her she was dull, limbs cold, pulse accelerated, temperature  $106\frac{1}{2}$ , found large superficial abscess about the centre of space



between ilium and last rib high up (site of puncture); opened abscess. Gave spts. vini., trec.,  $\text{Zi}$ ; spts. aeth. nit.,  $\text{Zii}$  as a drench in one quart of water; also quinine sulph.,  $\text{Zii}$ , in bolus. Mare did well for three days, when another abscess formed directly over point of ilium showed similar symptoms, and was treated the same as the first. Mare soon recovered.

Fourth case, a small bay gelding twelve years old, used as a family horse; he had not been out of stable for several days when called to see him. I found him with some pain and somewhat bloated. The case was obstinate, did not change much for six hours, when tympanitis became more prominent. I then punctured and got a good flow of gas, the horse soon recovering. Saw no more of the horse for five days, when I was called in to see him. Found horse in apparent good health, except that trocar wound had not closed, and it had a discharge of whitish matter. This surprised me, but with some difficulty I passed the whole length of a six-inch probe into the opening. Then I diagnosed fistula of the colon or cæcum. Treatment consisted of charging a long fine pointed syringe with a concentrated solution of argenti nitras, passing it (as near as I could guess) nearly to the intestine, when I slowly discharged while withdrawing it. Had no further discharge except a little pus. The external part of fistula was very obstinate but finally yielded to treatment.

While I heartily agree with my friend Mr. James in saying, Let us have some of the bitter as well as the sweet, I must say that in regard to the results of enterotomy the sweets predominate over the bitter by a large majority.

Yours,

WM. R. HOWE, V.S.

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#### THE NATIONAL VETERINARY MEDICAL ASSOCIATION.

*To the Editor of the American Veterinary Review :*

The letter published in the August REVIEW from the pen of Dr. Plageman, is a sufficient excuse for again bringing the State association question before the profession. Dr. Plageman is evidently endeavoring to smooth matters after a fashion, but he

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carefully keeps from any comments on the important points at issue, viz., whether the regulars should have the privilege of calling conventions and deciding on the proper means of advancing the interests of the profession, or should the irregulars be allowed to take the initiative in such matters, together with the proposed licensing powers of these associations, and the attendant evils which I have fully pointed out. He asserts that I object to some *distinguished practitioners* (the italics are mine), who signed the conventional call at this city. Now, I am well aware, as are many others, that there are many non-graduates whose scientific attainments and skill as practitioners justly entitle them to a place in our ranks, but, as I will soon try to show, Dr. Plageman's attempt to make this comparatively small body of gentlemen act as a leaven for the rest, is singularly unhappy. One distinguished practitioner here gravely informs a certain party that there was no such thing as a coronal, pedal and navicular bone being contained in a horse's hoof; there was simply one "solid chunk" of bone. "Distinguished practitioner" No. 2 is brought face to face with a bad outbreak of glanders and farcy in a drayman's stable, symptoms too plainly marked to justify a mistake, and sores all over body. He proceeds to treat by smearing animals with liniment, and it is left to the common sense of a horse-shoer, making no pretensions whatever to professional knowledge, to suggest that a few musket balls would be more appropriate in their treatment than greasy washes, which suggestion is in time adopted. "Distinguished practitioner" No. 3 brings a horse to be shod after cure of sand-crack; shoer hooks and draws out gutta percha composition with which said crack had been *cured*; case redounds greatly to the credit of No. 3, of course. "Distinguished practitioner" No. 4 is called in to find why a certain animal is off its feed; the truth of the matter is bad shoeing and very painful corns, which after a hard day's battering over the pavement, makes the animal so sore that he lies down as soon as possible after getting into the stable: Diagnosis—neuralgia of jaws, and is blistered therefor. "Distinguished practitioner" No. 5 has an infallible cure for tetanus: bleeds from the nose, tip of tail, and all four coronets—one drop of blood from each place is

sufficient; object, to keep up the circulation. "Distinguished practitioner" No. 6 is entrusted with case of purpura; characteristic swellings and petechia all there. *Diagnosis*—dropsy of the kidney. *Treatment*—setons through swellings and glauber salts. And so I could go on until I had cited an infinity of such cases as I am personally aware of, and both my readers and myself were tired out. I quote from the letter: "The admission of members to our State associations is conducted with care and judgment, and we admit or reject candidates according to their credentials and examinations." From what we know of the formation of the Missouri State Association, the care and judgment must have been exercised with penurious frugality, as we say out west. If the credential and examination parts were adhered to, will Dr. Plageman or some one who knows the ins and outs of the affair, kindly formulate what in future are to be recognized as credentials, and also give us a list of examination questions, percentages made on such, and other points of interest. What are the responsibilities of that mystic body, the State Board of Censors? We want to keep abreast of the times, and therefore watch professional institutions with the greatest interest. Our platform remains as before. "We refuse to believe that the proper way to advance the interests of the profession is to form a coalition with quackery." The distinguished practitioner theory won't hold water, and instead of Dr. Plageman throwing a clearer light on the subject, the only conclusion I can arrive at, is that we are about in the same place we started from.

H. F. JAMES, V.S.

**COLD DOUCHE IN COLIC.**—Dr. Tepliashin (*Vratch*) speaks very strongly as to the beneficial effect of cold irrigations applied to the abdomen in colic, by directing to the painful region a thin stream of cold water from a teapot lifted a foot or a foot and a half from the abdomen. He has seen rapid relief of even the most excruciating pains follow from this when the internal administration of opium and subcutaneous injection of morphia had failed.—*Gaillard's Medical Journal*.

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## CONTAGIOUS DISEASES.

SEMESTRICAL STATEMENTS, ENDING JULY 1ST, 1884.

| STATES.               | Anthrax. | Contagious<br>Pleuro-<br>Pneumonia. | Foot and<br>Mouth<br>Disease. | Glanders<br>and Farcy. | Hog Cholera. | Hydrophobia | Texas Fever. | Tuberculosis |
|-----------------------|----------|-------------------------------------|-------------------------------|------------------------|--------------|-------------|--------------|--------------|
| *1 Alabama.....       |          |                                     |                               | 5                      | 13           | 7           | 57           | 1            |
| 2 Colorado.....       | 20       |                                     |                               | 50                     | 100          |             | 30           | 2            |
| 3 Connecticut.....    |          |                                     |                               | 36                     |              |             |              |              |
| 4 Dakota.....         | 33       |                                     |                               | 6                      | 33           | 2           |              |              |
| 5 Delaware.....       |          |                                     |                               | 7                      | 24           | 2           |              | 8            |
| 6 Illinois.....       | 14       |                                     |                               | 40                     | 128          |             |              | 2            |
| 7 Indiana.....        | 4        |                                     |                               | 32                     |              |             |              | 5            |
| 8 Iowa.....           | 49       |                                     |                               | 80                     |              | 1           |              |              |
| 9 Kansas.....         | 30       |                                     |                               | 12                     |              | 3           |              | 1            |
| 10 Maine.....         |          |                                     | 44                            | 50                     |              |             | 11           | 1            |
| 11 Maryland.....      |          | 3                                   |                               | 2                      |              | 2           |              | 5            |
| 12 Massachusetts..... |          |                                     |                               | 73                     | 49           | 4           |              | 24           |
| 13 Michigan.....      |          |                                     |                               | 86                     | 40           | 4           |              | 7            |
| 14 Missouri.....      |          |                                     |                               | 6                      |              | 2           | 2            | 1            |
| 15 New Hampshire..... |          |                                     |                               | 7                      | 24           | 6           |              | 8            |
| 16 New Jersey.....    | 4        | 133                                 |                               | 6                      |              |             |              | 1            |
| 17 New York.....      | 16       |                                     |                               | 11                     | 3            |             | 7            | 5            |
| 18 Ohio.....          |          |                                     |                               | 11                     |              | 1           |              |              |
| 19 Pennsylvania.....  | 14       |                                     |                               |                        |              |             |              |              |
| 20 Rhode Island.....  | 1        |                                     |                               |                        |              |             |              |              |
| 21 Texas.....         |          |                                     |                               |                        |              |             |              |              |
| 22 Virginia.....      |          |                                     |                               |                        |              |             |              |              |
| 23 Wisconsin.....     |          |                                     |                               |                        |              |             |              |              |
| 24 Wyoming Terr.....  | None.    |                                     |                               | 11                     |              | 1           | Few.         |              |
| Total.....            | 185      | 136                                 | 44                            | 480                    | 454          | 35          | 117          | 71           |

## DISEASES FOR WHICH NO RECORD WAS KEPT.

Contagious Pleuro-Pneumonia in New York State and Maryland.

Texas Fever in Kansas and Maryland.

Hog Cholera, abundant in Virginia, Michigan, Maine and Texas. In Virginia the loss is estimated at \$10,000 in four months.

\*1, Dr. P. Z. Colsson. 2, S. Stevens, S. Bock and G. C. Faville. 3, F. E. Rice and Th. Bland. 4, G. S. Agersborg. 5, W. B. Rowland. 6, M. H. McKilip, J. Albright, J. B. Galt, J. J. Vanderzee and M. R. Trumbower. 7, B. E. Stauffer, C. H. Gollatz, J. N. Navin and A. D. Galbraith. 8, C. H. Flynn, J. Henry, W. P. Robins and M. Stalker. 9, A. A. Holcombe and A. W. Hoover. 10, G. H. Bailey. 11, W. Dougherty and T. W. Sprauklein. 12, W. Bryden, W. H. Haskell, T. S. Very, E. F. Thayer and L. H. Howard. 13, J. Sutton. 14, H. F. James and T. E. White. 15, L. T. Hazen. 16, W. G. Schmidt, W. H. Arrowsmith, J. Gerth, Jr., J. C. Corlies, E. L. Loblein and J. C. Force.

17, H. W. Bath, J. Faust, S. S. Field, W. H. Pendry, Richard Kay, C. Burden, J. Hollingsworth, H. B. Boyd, W. C. Bretherton, J. J. Baker, J. S. Sutcliffe, W. S. Devoe, L. W. Terwilliger, H. T. Foote, W. Cutting and J. Lindsay. 18, J. C. Myers, Jr., J. H. St. Clair, W. R. Howe, L. P. Chase, L. D. Blanchard and J. N. Krowl. 19, W. H. Knight, D. M. Kain, C. T. Goentner, D. K. Light, W. H. Hoskins and W. H. Ridge. 20, J. O. Tillinghast. 21, F. J. Smith. 22, J. W. Wood, H. S. Hogsett, C. B. Robinson and J. A. Myers. 23, A. Valerius. 24, J. D. Hopkins.

*(From the July Bulletin of the Department of Agriculture, Statistics and Health, Manitoba, Canada.)*

“Live stock appear to be almost free from disease. With the exception of glanders among horses, which unhappily prevails in a few isolated cases, nothing has been reported. During the winter cattle were troubled in a few places with a swelling on the jaws, but that all passed away with opening of spring and nothing has been reported at this writing as ailing them. A number of farmers lost their sows and litters, the cause being attributed to overfeeding before pigging. There being large quantities of wheat of an inferior quality on hand in many places it was largely used as feed and instead of feeding sparingly the reverse appears to have been the case, and the many deaths which occurred among hogs was the result. The country possesses many young and inexperienced farmers who will have to make their calling a study in every respect if they expect to get on and prosper.

“The operations of the Veterinary Sanitary Service of the Department during June were confined to horses, no cases of infectious or contagious disease among any other animals having been reported to district veterinarians. During the month district veterinarians paid thirty-five visits of inspection, nineteen being first visits and sixteen periodical. The time occupied in these inspections was thirty days, 1023 miles being travelled, 854 by road and 169 by rail. The number of horses inspected during first visits was thirty-eight. Fifteen horses were condemned as affected with glanders or farcy and were destroyed; twelve were quarantined on suspicion of being affected with glanders or farcy. No cases of mange were reported. Of the fifteen cases of glanders or farcy destroyed Brandon, Lisgar and Selkirk counties had three each; D'Iberville two, and Manchester, Portage la Prairie, Souris River and Dufferin one each.

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## REVIEW.

MEDICAL REGISTER OF NEW YORK, NEW JERSEY  
AND CONNECTICUT.

By W. T. WHITE, M.D.

The present volume, the twenty-second of the publication, has been recently delivered to its ordinary subscribers, well printed and handsomely brought out, as might be anticipated when we remember that the house of G. P. Putman's Sons are responsible for the publication. It contains whatever information may be desirable respecting the medical profession in the States of New York, New Jersey and Connecticut, and, to that extent, is probably as complete a work as we have a right to look for. The veterinarians of this section of the country have heretofore freely referred to its pages and largely taken advantage of its labors as a directory to members of their own profession, or in matters properly falling in their way. This has been the case because for a number of years the interests of veterinary colleges in active operation, and even those which were not, and of veterinary hospitals, whether full of patients or of empty stalls, together with veterinary operations, have all usually found place and mention in the *Register*. This year, however, veterinarians in search of items of interest will be disappointed if they look for a continued "register," such as they have become accustomed to, and the *alumni* of the organized schools who watch for news from their *alma mater* will search in vain, in the small space appropriated to veterinary intelligence in the little green book.

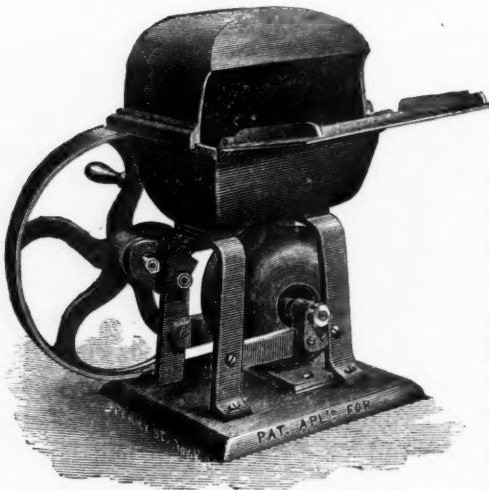
That the Columbia Veterinary College had closed its doors, as long ago as in March last, every one knew, and no reports could be expected from that institution. But has any rumor found tongue that the American Veterinary College was about collapsing? Has any one heard that it was going to stop work and go into *articulo mortis*? On the contrary, were there not abundant rumors in circulation of successful progress hitherto, and large promise for the future—that it had outgrown its habitation, and it had become necessary to provide, and had taken steps to secure, larger accommodations for the students? And yet, no mention of that institution is found in the *Medical Register*, notwith-

standing the fact that since the opening of the college in 1875, a period of nine years, it has always occupied the place in its columns allowed to it, as due to one of the medical schools of the State of New York.

According to the *Medical Register* the only veterinary college existing the present year, in this State, is the New York College of Veterinary Surgeons. Is it because the editor of the *Register* is also the president and professor in that institution, that it is the only one thought worthy of hospitality in the pages of the *Register*? Leaving the answer of this query to the judgment of our readers, we take pleasure in now announcing that a veterinary register is now in process of publication and that in a short time veterinarians will no longer be obliged to depend on deficient and biased directories for information concerning that profession.

### NEW INSTRUMENTS.

THE HANDY LITTLE FORGE invented by Dr. C. H. Peabody, of Providence, R. I., is already known to some of us, having



been exhibited by its inventor in New York and Boston at meetings of the United States Veterinary Medical Association. Since, however, it has been considerably improved, and to-day is offered to the profession at a very low figure. It is most convenient, and must find its way into every veterinarian's arsenal. It is small, neat, sufficiently

powerful to heat several irons in a few minutes, can be carried easily, and, at the price fixed, is at the disposal of every one. Full particulars can be obtained by applying to the inventor.

## NEWS AND SUNDRIES.

**TEXAS FEVER.**—Texas fever has made its appearance again in several of the Northern States.

**KILLED BY FLIES.**—Three deaths of a remarkable character recently occurred near St. Petersburg. They were caused by blood-poisoning induced by the stings of flies which had been in contact with cattle infected with the rinderpest.

**RABIES IN BIRDS.**—M. L. Gibier has succeeded in inoculating hens with the virus of hydrophobia and then reinoculating rats with cerebral matter taken from these diseased birds. The rats so treated presented all the characteristic symptoms of rabies; microscopic examination of the brains of the inoculated hens showed the presence of the specific micrococcus.—*Centralblatt für Chirurgie*, June 7, 1884.

**ACTINOMYCOSIS CONTRACTED FROM EATING MEAT.**—The surgeons at the Chicago county hospital have under treatment a Mrs. Murphy, 27 years of age, who is suffering from a horrible disease which afflicts cattle, and is known as "lumpy jaw." It is in the form of an abscess on her jaw, and was at first supposed to be an ordinary abscess, but microscopical examination proves the contrary. The abscess was found to contain vegetable parasites identical with those found in abscesses on cattle. It is supposed to have been caused by eating the meat of cattle having the disease. An operation will be performed on Tuesday next. The case excites some interest, as it is the first one reported in the United States, though similar cases have already been recorded in Germany.—*N. Y. Sun*.

**AN OLD MODE OF DETECTING RABIES.**—To enable a person who had been bitten by a dog to ascertain whether or not the animal was rabid, the *Universal Magazine*, a London monthly publication, in its issue of November, 1753, published the following, which is accredited to "The Memoirs of the Royal Academy of Sciences at Paris:" "When a person hath been bitten by a

dog that is apprehended to be mad, it commonly happens that the dog is killed before one is assured of his condition, and the person bitten continues in a cruel uncertainty. Mr. Petit, the surgeon, hath an expedient for putting an end to this uneasiness. He rubs the throat, the teeth, and the gums of the dead dog with a piece of meat that hath been dressed, taking care that there be no blood to stain it, and then offers it to a living dog. If he refuses it with crying and howling, the dead dog was certainly mad; but if the victuals have been well received and eaten, there is nothing to fear."

**NEW HORSESHOE.**—A new horseshoe has lately been experimented with at Lyons, France. It is made entirely of sheep's horn, and is found particularly adapted to horses employed in towns and known not to have a steady foot on the pavement. The results of the experiments have proved very satisfactory, as horses thus shod have been driven at a rapid pace on the pavement without slipping. Besides this advantage, the new shoe is very durable, and, though a little more expensive than the old one, seems destined sooner or later to replace the iron shoe, particularly for horses employed in large cities where, besides the pavement, the streets are intersected by tramway rails, which from their slipperiness constitute a source of permanent danger.—*Am. Druggist.*

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